AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 1, line 8 as indicated below:

In code division multiple access (CDMA) mobile communication systems, such as the Universal Mobile Telecommunication System (UMTS), data is transmitted using a spread spectrum modulation technique wherein the data is scattered across the entire range of available frequencies. Each user is assigned a unique spreading code which is used to spread the data in such a way that only the same code may be used to recover the data. The spreading code is called a pseudo-random noise (PN) code and is composed of a sequence of 1's and 0's (or 1's and -1's), called "chips," that are distributed in a pseudo-random ~~of 1's and 0's (or 1's and -1's), called "chips," that are distributed in a pseudo-random~~ manner and has noise-like properties. The number of chips used to modulate (spread) one data bit, or "chips/bit," may vary and depends, in part, on the data rate of the traffic channel and the chip rate of the system. To recover the transmitted data, the received signal must be demodulated with the same PN code using the same chip rate. Furthermore, the timing of the demodulation must be synchronized, that is, the PN code must be applied to the received signal at the correct instant.

Please amend the paragraph beginning at page 2, line 17 as indicated below:

~~Alas, the~~ The timing adjustments have undesirable effects in the receiver unit in terms of the amount of current consumed and the processing power required for interrupt-handling controls. In addition, for full duplex systems where both signal transmission and reception can occur at the same time, a timing adjustment for the reception of a certain multipath signal means that the same timing adjustment needs to be made on the transmission to the base station. Unfortunately, timing adjustments on the transmission from the receiver unit to the base station generally result

in signal degradation at the base station. Thus, the fewer number of timing adjustments that have to be made per timing unit, the better.

Please amend the paragraph beginning at page 4, line 6 as indicated below:

An algorithm in the automatic frequency control unit 104 estimates the frequency error using the frequency of the signal provided by the transceiver unit 102 and the reference frequency of the receiver unit 100. The algorithm calculates the frequency error Δf according to the following equation:

$$\Delta f = f_{basestation} - f_{ref} \quad (1)$$

Where $f_{basestation}$ is the frequency of signal received from the base station, and f_{ref} is the reference frequency of the receiver unit. The frequency error Δf is then provided to the frequency conversion unit 106 to be used as part of the process of controlling the reference frequency of the receiver unit 100.